

Pacific Office Systems

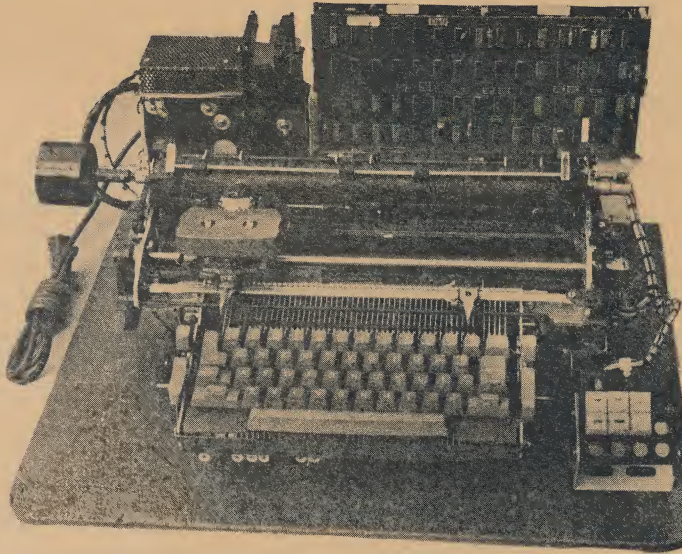
INCORPORATED

Automated Text Processing & Data Processing

Consulting, Sales, Service

STANFORD FINANCIAL SQUARE
2600 EL CAMINO REAL
PALO ALTO, CALIF. 94306

Tel: (415) 321-3866



SURPLUS SELECTRIC I/O COMPUTER TERMINAL

This product consists of an IBM Selectric typewriter, power supply, four printed circuit cards, and wire harness with five-key functions control keyboard.

The terminal is designed to prepare hard-copy papers and transmit the information they contain on-line to the computer. The terminal will also read and print out the computer's response at speeds of up to 15 characters per second.

All components and circuitry are manufactured by nationally known companies with the exception of the micro-computer interface circuit card which is our own design. Instructions are included which show how to connect the terminal to the teletype port of certain micro-computer input/output circuit cards commonly used with 8080-type micro-computers such as Altair, IMSAI, Polymorphics or SOL.

WARNING: All parts are used and the product is sold without warranty other than to be delivered in operating condition. Pacific Office Systems sells these machines as an accommodation to computer hobbyists who are expected to make their own electronics repairs from wire and circuit diagrams provided with the product.

Typewriter repairs can be made by your IBM service representative, as no mechanical changes have been made to the typewriter mechanism.

F E A T U R E S

Typewriter

In addition to its functions as an on-line terminal, this machine can also serve as a standard Selectric office typewriter with interchangeable type spheres. It utilizes either fabric or carbon ribbon with automatic reversal at end of ribbon.

No cover or case is provided with the terminal. However, an optional cover is available as well as a portable carrying case with rollers.

Five-Character Buffer Memory

Among its many features, this terminal has a five-character buffer that prevents the terminal from falling behind when receiving data from the computer, and also prevents keyboard overrun.

Interface with IBM Computers

This computer terminal was designed by its original manufacturer to interface with third generation IBM computers and other computers compatible with IBM 2741-type terminals. In this mode, data is transmitted in 8-bit serial format consisting of six data bits (EBCDIC encoded) plus two bits for start/stop and vertical parity checking. The interface is standard EIA RS-232.

Telephone Line Interface

If telephone line communication is desired, a built-in 103-type modem is available in place of the EIA interface for use with a telephone Data Access Arrangement (not provided). Or you may retain the EIA interface and attach your own separate modem unit to the terminal's RS-232 connector.

Interface with 8080-type Micro-Computers

We have designed an interface circuit card which converts the data transmission voltages and allows the terminal to be connected directly to the teletype port of various I/O circuit cards commonly used with the Altair or IMSAI micro-computers. Instructions are provided for adjusting the I/O card's clock from the teletype transmission rate (110 baud) to the Selectric rate (134.5 baud) for two commonly used I/O cards.

Communications between terminal and computer remain encoded EBCDIC. If you desire to run BASIC (ASCII code) programs in your micro-computer, our assembly language ASCII software translation program may be used, which requires less than 1K of memory and will not interfere with other packaged software programs available for use with your micro-computer.

ACCESSORIES

Not included in the price for the basic terminal but also available for use with it are the following:

- * Software program in 8080 assembly language for code conversion from EBCDIC to ASCII, for use with 8080-type 8-bit micro-computers.
- * Moore Business Forms "Formaliner" tractor feed for variable width continuous forms.
- * Aluminum cover and base for terminal.
- * Portable fiberglass carrying case with rollers.
- * Copy Holder.



S P E C I F I C A T I O N S

PRINTER:

- * IBM Selectric with interchangeable type spheres.
- * Maximum typing/printing speed: 15 characters per second.
- * Power Repeat Keys: Space, Back-space; Dash, Index.
- * Platen: 15 inch with 13 inch writing line; 130 characters per line.

CODE GENERATION:

- * EBCDic encoded data transmission.
- * Vertical parity generation & detection.

BUFFER SYSTEM:

- * 5-character buffer operates to prevent transmission and operator keyboard overruns.

SYSTEM MODES:

- * Keyboard-to-printer; keyboard-to-printer-and-line, line-to-printer.

DATA TRANSMISSION CAPABILITIES:

- * Maximum I/O rate of 15 characters per second (134.5 baud) in serial format.

METHOD:

- * Eight-bit serial; start/stop, standard.

INTERFACE:

Either:

- *(1) Standard EIA RS-232-B; or
- *(2) 20 milliamp teletype current loop, or
- *(3) Built-in 103-type modem for use with telephone Data Access Arrangement.

POWER REQUIREMENT:

- * 115V, 60 Hz, 120 watts.

SIZE & WEIGHT:

- * 22" W, 18" D, 8" H, 60 lbs.



FUNCTIONS CONTROL KEYBOARD:

XMIT	TYPE	XMIT ERROR
ATTN	READY	

The Functions Control Keyboard facilitates on-line use of the computer terminal as both an input and output device.

TYPE--When illuminated indicates that the keyboard is under operator control. When light is off the terminal is under computer control. Pressing this key also resets the electronics and transmits an EOA code.

READY--When illuminated indicates that the data link is established and carrier is present. Light goes out automatically when the line is dropped.

XMIT (Transmit)--Illuminates when READY is active. XMIT can be turned off by depressing the key to permit typing without transmitting.

XMIT ERROR (Transmission Error)--When illuminated indicates detection of data error. Does not lock keyboard. Pressing the XMIT ERROR key resets detection function.

ATTN (Attention)--Pressing this key when in the Receive mode interrupts the computer and when in the Transmit mode sends an EOT (End of Transmission) to the computer.

LITERATURE INCLUDED:

- * Wire and circuit diagrams.
- * Typewriter electronics adjustments.
- * Instructions for interfacing terminal with the following micro-computer input-output circuit cards:
 1. Processor Technology Corp. "3P + S"
 2. MITS (Altair) "2 S I/O"



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SURPLUS SELECTRIC I/O COMPUTER TERMINAL LIMITED WARRANTY & SERVICE AGREEMENT

Pacific Office Systems desires to bring its Surplus Selettric I/O Terminal to the computer hobbyist at the lowest possible price consistent with the quality of the product sold.

WARRANTY: Each unit is assembled and fully tested prior to delivery and is warranted to be complete as described and free from defects in parts or workmanship when delivered.

Defective units returned to Pacific Office Systems within one week of delivery will be repaired without charge unless there are visible signs of mishandling by the purchaser after delivery. Shipping charges within this period will be paid by Pacific Office Systems.

NOTE: PLEASE TELEPHONE before you send us any product which you believe is defective.

Pacific Office Systems does not warrant that its Surplus Selectric I/O Computer Terminal or related software will serve any particular purpose desired by the purchaser, nor does Pacific Office Systems offer instructions in how to use the equipment sold.

However, we will share with you our experience involving use of the terminal with various 8080-type microcomputers upon request.

SERVICE:

Repair service after one week following delivery (including repair consultation over the telephone) will be billed to the customer at Pacific Office Systems' standard rates for labor and parts (currently service is \$30.00 per hour door-to-door, minimum charge of \$30.00). Shipping costs for service are borne by the purchaser.

The above service policy allows Pacific Office Systems to bring quality hardware at lowest possible prices to the serious hobbyist whose money is more limited than his time and repair skills.

At the same time, by agreeing to service all products which leave our doors (for a fee), Pacific Office Systems can attempt to protect the "naive user" against the disaster of inoperative expensive hardware whether failure occurs within or without an arbitrary warranty period.

This warranty is made in lieu of all other warranties express or implied and is limited in any case to the repair or replacement of defective parts and does not cover consequential damages.

PACIFIC OFFICE SYSTEMS, INC.